

Hiltner, Allison

From: Wakeman, John S NWS <John.S.Wakeman@usace.army.mil>
Sent: Thursday, January 24, 2013 4:26 PM
To: Hiltner, Allison
Cc: Michalsen, Mandy M NWS; Henzi, Veronica J NWS; Philip M Gschwend; Jennifer Apell
Subject: Conversation record - discussion of Food Web Model (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

1. LDWG asked to understand how the Food Web Model (FWM) would be used by Phil Gschwend of MIT and his graduate student, Jennifer Appel. They have a SERDP/ESTCP proposal with Mandy Michalsen, and have requested it. Kathy Godtfredtsen, WindWard, and Jeff Stern, King Co., discussed it with the 3 researchers and John Wakeman on 24 January.

2. Regarding the model, Jeff explained that the FWM was modified from the "standard" Arnot and Gobas model (Jon Arnot assisted in this). The version used in the FS is described in a TM as well as in Appendix D (esp. Tables D-4 and D-5.3) of the 2010 RI. Jeff stated that there may be "later" versions of the Arnot and Gobas model, and that this version has been optimized for the data in the LDW, including a lot of historic discussion regarding which tissue data to use for this purpose. [The FWM uses a single variable for Kow for the PCB mixture used, whereas other versions (for examples see http://arnotresearch.com/list_JonArnot.html, particularly AquaWeb) of this model family treat 209 congeners. Monte Carlo simulations were used to determine 20 parameters/combinations that might be adjusted for model optimization; a subset of 10 were selected and reviewed for biological relevance, and a matching technique (involving comparison of margin of error for each species) was applied to guide the final selection. Jeff and Kathy said that there had been some concern during the RI for the influence of a 2004 dredging project that might have positively biased the tissue samples taken. In summary, the FWM is site and tissue specific, and differs from the "generic" models under the name of Arnot and Gobas.

3. Phil said that their research intent is not to modify the model further, but instead to piggy-back on what has been done. There was general discussion of ongoing research (as opposed to the SERDP proposal) involving black carbon (which is relatively high in sediments measured from RMs 0.5-3.5, compared to other sites, and may be due to coal mining and transportation), the placement of sub-surface and near-surface PEDs at 5 stations, and the relevance of these measures to the "future" FWM that would inform the Remedial Design phase. Jeff and Kathy said that they saw benefits from gathering data and communicating with LDWG about it. John added that the results of the (ongoing) research would be available (once received, probably 4 months out), and Mandy added that the SERDP research has "checkpoints" that generate partial information for the SERDP technical reviewers, and that are publicly available.

4. Jeff and Kathy requested a copy of the Work Plan for the ongoing research. John said that he thought Rebecca Chu had forwarded it to LDWG, but said he would find a copy and provide it.

5. Jeff and Kathy said that they had no problem with sharing the FWM, and would recommend this to LDWG steering committee (or whatever they call themselves).

John S. Wakeman
US Army Corps of Engineers, Seattle District
4735 E Marginal Way S
Seattle, WA 98134
206.764.3430
206.764.3706 fax

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